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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,365	03/18/2004	Patrick Brant	2003B044/2	7914
7590 11/07/2007 ExxonMobil Chemical Company Law Technology P.O. Box 2149 Baytown, TX 77522-2149			EXAMINER LEE, RIP A	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 11/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

3

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/803,365	BRANT, PATRICK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rip A. Lee	1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8-11,14,15,18-28 and 30-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-11,14,15,18-27 and 31-55 is/are rejected.
- 7) ☒ Claim(s) 5, 15, 28, 35, 44 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

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|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1796

### DETAILED ACTION

This office action follows a response filed on October 9, 2007. Claims 1, 4, 5, 8-11, 14, 15, 18-28, and 30-55 remain pending. Indicated allowability of claims has been withdrawn in view of newly discovered references, described below.

#### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 4, 5, 8-11, 14, 15, 18-27, 31, 32-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutsui *et al.* (U.S. 5,336,746).

Tsutsui *et al.* discloses preparation of random copolymers of propylene having from 1-10 mole % of a C<sub>4</sub>-C<sub>20</sub>  $\alpha$ -olefin in the presence of a catalyst comprising a hafnium complex having two cycloalkadienyl groups linked together *via* an alkylene linkage (abstract). Terpolymer containing up to 9.5 mole % of ethylene are also prepared with inventive catalysts (col. 6, lines 30-37). These copolymers may be prepared with catalysts containing compounds such as Et(4-MeInd)<sub>2</sub>HfCl<sub>2</sub>, Et(7-MeInd)<sub>2</sub>HfCl<sub>2</sub>, and Et(4,7-Me<sub>2</sub>Ind)<sub>2</sub>HfCl<sub>2</sub> (col. 9, lines 40-47). Although the reference does not show working examples in which inventive polymer are prepared with catalysts containing these metallocenes, one having ordinary skill in the art would have found it obvious to carry out such a process, and since Tsutsui *et al.* teaches these compounds as useful for making the inventive polymer, one having ordinary skill in the art would have expected such a process to work with a reasonable expectation of success. The reference is silent with respect to polymer properties, however, in view of the fact that the polymer has the same constitution as that recited in the instant claims, and in light of the fact that the polymer is prepared using substantially the same catalyst system, a reasonable basis exists to believe that the propylene copolymers prepared by the aforementioned catalysts exhibit substantially the same properties. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Art Unit: 1796

3. Claims 1, 4, 5, 8-11, 14, 15, 18-27, 31, 32-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadatoshi *et al.* (U.S. 5,830,968).

Sadatoshi *et al.* teaches a process of making a propylene random copolymer containing about 6-40 wt % of a C<sub>4</sub>-C<sub>20</sub> α-olefin comonomer (abstract). Ethylene may also be copolymerized provided that it does not interfere with the physical properties of the resulting polymer (col. 3, lines 45-50). Catalysts that are useful for preparing inventive copolymers contain a hafnium compound (claim 6, Figure 1), such as Et(4-MeInd)<sub>2</sub>HfCl<sub>2</sub>, Et(7-MeInd)<sub>2</sub>HfCl<sub>2</sub>, and Et(4,7-Me<sub>2</sub>Ind)<sub>2</sub>HfCl<sub>2</sub> (col. 5, lines 8-14). While the reference does not show working examples in which inventive polymer are prepared with catalysts containing these metallocenes, one having ordinary skill in the art would have found it obvious to carry out such a process, and since Sadatoshi *et al.* teaches these compounds as useful for making the inventive polymer, one having ordinary skill in the art would have expected such a process to work with a reasonable expectation of success. The reference is silent with respect to polymer properties, however, in view of the fact that the polymer has the same constitution as that recited in the instant claims, and in light of the fact that the polymer is prepared using substantially the same catalyst system, a reasonable basis exists to believe that the propylene copolymers prepared by the aforementioned catalysts exhibit substantially the same properties. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

#### ***Response to Arguments***

4. The rejection of claims 1, 4, 8-14, and 18-28 under 35 U.S.C. 103(a) as being unpatentable over Fujita *et al.* (U.S. 6,43,911) has been overcome by amendment.

Art Unit: 1796

***Claim Objections***

5. Claims 5, 15, 35, 44, and 52 are objected to because of the following informalities: The claim states that integers " $m$  and  $n$  are 1." It is not clear whether  $m$  and  $n$  are each one ( $m = 1$  and  $n = 1$ ), or whether the sum,  $m$  and  $n$ , are equal to one ( $m + n = 1$ ). Appropriate corrections are required.
6. Where claims 5, 15, 35, 44, and 52 are drawn to embodiments in which  $m$  and  $n$  are each one ( $m = 1$  and  $n = 1$ ), the subject matter would be patentably distinct over the disclosure of Tsutsui *et al.* and Sadatoshi *et al.*
7. Claim 28 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Neither Tsutsui *et al.* nor Sadatoshi *et al.* disclose the subject matter of claim 28. Tsutsui *et al.* indicates that terpolymers may include ethylene in an amount of up to 9.5 mole %, which equates to less than 8 wt% of ethylene.
8. Claim 30 remains allowed.

Art Unit: 1796

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



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November 6, 2007